

What is Claimed Is:

1. A method in a transmission system configured for outputting a set of waveform samples starting at a transmission time instant according to a transmit clock, the method comprising:
determining a phase error between the transmit clock and a prescribed transmit clock relative to the transmission time instant; and
5 outputting a selected waveform sample set based on the determined phase error, the waveform sample set having samples of a prescribed waveform relative to a corresponding phase offset, the phase offset of the selected waveform sample set correcting for the determined phase error.
2. The method of claim 1, further comprising:
obtaining a first time interval specification relative to a start of frame signal for a data frame to be transmitted; and
determining the transmission time instant based on the first time interval specification and the
5 start of frame signal.
3. The method of claim 2, wherein the step of obtaining the first time interval specification includes generating a request, to a coding block, for the first time interval specification.
4. The method of claim 2, wherein the step of determining the transmission time instant includes adding the first time interval specification to prior time interval specifications received following the start of frame signal to obtain an accumulated integer.
5. The method of claim 4, wherein the step of determining the transmission time instant includes calculating the transmission time instant by multiplying the accumulated integer by a normalized value of the prescribed transmit clock.
6. The method of claim 5, wherein the step of determining a phase error includes:
incrementing a modulo counter according to the transmit clock and based on the start of frame signal, the modulo counter outputting a modulo count having a number of possible values based on a corresponding number of different phase values between the prescribed transmit clock and the transmit
5 clock, each possible value identifying a corresponding one of a plurality of the waveform sample sets having a corresponding phase offset; and

identifying an output incidence where an actual counted time relative to the transmit clock coincides with the transmission time instant within a prescribed phase offset resolution.

7. The method of claim 6, wherein the outputting step includes selecting the selected one waveform sample set based on the modulo count value at the output incidence.

8. The method of claim 7, wherein the selecting step includes selecting the selected one waveform sample using one of the modulo count value and an offset value of the modulo count value based on whether the accumulated integer is an even number or an odd number.

9. The method of claim 2, wherein the step of determining a phase error includes:
incrementing a modulo counter according to the transmit clock and based on the start of frame signal, the modulo counter outputting a modulo count having a number of possible values based on a corresponding number of different phase values between the prescribed transmit clock and the transmit clock, each possible value identifying a corresponding one of a plurality of the waveform sample sets having a corresponding phase offset; and

identifying an output incidence where an actual counted time relative to the transmit clock coincides with the transmission time instant within a prescribed phase offset resolution.

10. The method of claim 9, wherein the outputting step includes selecting the selected one waveform sample set based on the modulo count value at the output incidence.

11. The method of claim 10, wherein the selecting step includes selecting the selected one waveform sample by outputting to a multiplexer one of the modulo count value and an offset value of the modulo count value, based on whether the transmission time instant is an even number or an odd number relative to a normalized multiple of the transmit clock.

12. A transmission system configured for outputting a set of waveform samples starting at a transmission time instant according to a transmit clock, the system comprising:

a pulse shape table circuit configured for outputting a selected waveform sample set of a prescribed waveform relative to a selected phase offset in response to an address signal and a selection signal; and

a phase correction module configured for determining a phase error between the transmit clock and a prescribed transmit clock relative to the transmission time instant, the phase correction module outputting the address signal and the selection signal at the transmission time instant for output of the selected waveform sample set correcting for the determined phase error.

13. The system of claim 12, wherein the phase correction module includes:

a coding interface controller configured for obtaining a first time interval specification relative to a start of frame signal for a data frame to be transmitted; and

an accumulator block configured for determining the transmission time instant based on adding the first time interval specification to a previously accumulated integer relative to the start of frame signal to obtain an accumulated integer, and based on an accumulate signal output by the coding interface controller.

14. The system of claim 13, wherein the phase correction module further includes a multiplier for calculating the transmission time instant by multiplying the accumulated integer with a normalized value of the prescribed transmit clock.

15. The system of claim 12, wherein the phase correction module includes:

a modulo counter configured for modulo counting, as a modulo count, the selection signal each cycle of the transmit clock and based on a start of frame signal, the modulo count having a number of possible values based on a corresponding number of different phase values between the prescribed transmit clock and the transmit clock; and

a transmit clock incidence detector configured for identifying an output incidence where an actual counted time relative to the transmit clock coincides with the transmission time instant within a prescribed phase offset resolution, the transmit clock incidence detector configured for outputting the address signal at the identified output incidence.

16. The system of claim 15, wherein the phase correction module further includes table select logic configured for outputting the selection signal by selectively offsetting the modulo count based on whether the transmission time instant is an even number or an odd number relative to a normalized multiple of the prescribed transmit clock.

17. The system of claim 12, wherein the pulse shape table circuit includes:

a multiplexer configured for outputting from a selected one of the pulse shape tables the corresponding selected waveform sample set in response to the selection signal.